<center>**REMARKS**</center>

Claims 1-28 are pending in the application. Independent claims 1, 11 and 20 are amended above to more clearly recite a tangible result of the claimed invention. Claims 20-28 are amended above to overcome the examiner's section 101 rejection. No new matter has been added to the application by way of these claim amendments.

The examiner's claim objections and rejections are overcome or they are traversed as set forth below.

I.   THE MINOR INFORMALITIES

The examiner objected to claims 11 and 20 for including a typographical error. Claims 11 and 20 are amended above to correct the error.

II.   THE SECTION 101 CLAIM REJECTIONS

The examiner rejected claims 1-28 under 35 USC 101 for being directed to non-statutory subject matter. In particular, the examiner rejected the claims because it does not require physical acts to occur outside of a computer.

Applicant has amended all independent claims to include the limitations that, broadly speaking, input signals are derived by means of a receiver system with sensor means, and that the signals decorrelated in a wide sense are used or made available for use as one of separated signals and pre-processed signals for input to another process. Thus Applicant's invention as now claimed includes a tangible result.

Applicants moreover respectfully submit that their invention does in fact produce a useful tangible result. Applicants' invention is a computer-implemented form of filter or filtering technique for electronic signals. This is evidenced for example by the titles of the seven items of prior art cited in Applicants' specification at page 3 lines 1, 5-6, 13-14, 22-23 and 31-32, and page 4 lines 5-6 and 14-15, all of which include "filter" or "filters" in the title. It is well accepted that filters and filtering techniques for electronic signals are very useful in technology to process signals which would otherwise be unrecognisable or generally unfit for purpose.

Applicants' invention is associated with a field known as "blind signal separation", which relates to separating signals from signal mixtures: the expression "blind" indicates that no assumptions are made about signal characteristics or processes which form signal mixtures, other

<center>10</center>

than statistical independence. There are many known filtering techniques for separating signals using foreknowledge of signal characteristics, e.g. a signal's frequency, waveform, timing, amplitude modulation, arrival direction when received *etc.* Lacking such foreknowledge, signal separation is a difficult problem to which a considerable amount of research has been directed. Two signal mixtures which contain the same signals (albeit in different proportions) will inevitably be correlated with one another: the process of decorrelation implemented by Applicants' invention therefore contributes to separating signals.

The utility of Applicants' invention is discussed in the specification at page 1 lines 5-7 and lines 14-21. Applicants' invention decorrelates signals which have undergone convolutive mixing, i.e. not instantaneously mixed signals, but signals that when received at a sensor give rise to a sensor output signal which must be expressed as a convolution: here a convolution is a combination of a series of replicas of a signal relatively delayed with respect to one another.

The objective of decorrelation is to remove similarities between signal mixtures received as input signals, thereby eliminating redundancies. This may be used to separate constituent signals of a signal mixture, i.e. to recover or "unmix" constituent signals as they were prior to mixing. Alternatively, it may be used as part of another process such as data compression. A common application is to separate a signal which carries meaningful data from noise in the environment and in an electronic receiver system which detects the signal mixture.

Decorrelated signals produced by Applicants' invention are therefore useful physical entities: they are useful in themselves or as inputs to another process, and they are the output of a filtering process which separates statistically independent constituents of a mixture of signals. The process is analogous to any other filtering process to separate signals of different frequencies, waveforms, modulation etc. Consequently Applicants respectfully traverse the rejection of this application under 35 U.S.C. 101, because Applicants' invention does in fact provide a useful tangible result.

In addition, claims 20-28 are amended above to define the invention in the context of a computer readable medium encoded with a computer program by defining patentable subject matter.

CONCLUSION

All pending application claims 1-28 are believed to be patentable for the reasons recited above. Favorable reconsideration and allowance of all pending application claims is, therefore, courteously solicited.

Respectfully Submitted,

Date: May 2, 2007   By: /A. Blair Hughes/
                                     A. Blair Hughes
                                     Reg. No. 32,901
                                     312-913-2123
                                     hughes@mbhb.com